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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/620,544	07/21/00	ESTAKHRI	P 38979-11CPA2

EXAMINER

TM02/0605

LAW OFFICES OF IMAM & ASSOCIATES
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SUITE 1100
SAN JOSE CA 95113

BRAGDON, R

ART UNIT	PAPER NUMBER
2185	6

DATE MAILED:
06/05/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

PTO-90C (Rev.11/00)

1- File Copy

Office Action Summary

Application No.	Applicant(s)
09/620,544	Estakhri et al.
Examiner	**Art Unit**
Reginald Bragdon	2185

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Apr 18, 2001*

2a) ☒ This action is **FINAL.** 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *2-14* is/are pending in the applica

4a) Of the above, claim(s) _____ is/are withdrawn from considera

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *2-14* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirem

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other:

DETAILED ACTION

1. Claims 2-14 are pending in the application.

Claim Objections

2. Claims 2-10 and 13-14 are objected to because of the following informalities:

As per claim 2, line 6, "said controller" should be deleted.

As per claim 2, line 8, --to rewrite-- should be added after "specify".

As per claim 2, line 8-9, "to be rewritten" should be deleted.

As per claim 3, line 9, "said new block" should be --a new block-- since no "new block" was set forth previously.

As per claim 6, line 2, --information-- should be added after "sector".

As per claim 7, line 9, "said new block" should be --a new block-- since no "new block" was set forth previously.

As per claim 10, line 2, --information-- should be added after "sector".

As per claim 13, line 3, "of claim 11" should be deleted.

As per claim 14, line 2, "of claim 13" should be deleted.

All dependent claims are objected to as having the same deficiencies as the claims they depend from.

Appropriate correction is required.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 2-14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 18 of U.S. Patent No. 6,145,051. Although the conflicting claims are not identical, they are not patentably distinct from each other because the deletion of an element or step (i.e. address mapping between a logical block address and the physical block address) and its corresponding function, would have been obvious to one of ordinary skill in the art.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 3-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 3, 7, and 11, Applicant sets forth "previous sector information". However, it is not clear whether this "previous sector information" is the sector information subject to the command from the host or other sector information in the block not subject to the command from the host.

As per claims 5-6, 9-10, and 13-14, if the "previous sector information" refers to the sector information subject to the command from the host, then it is not clear why the "previous sector information" needs to be moved or where it is moved too.

All dependent claims are rejected as having the same deficiencies as the claims they depend from.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> --or--
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who

has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

8. Claims 3-4, 7-8, and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Assar et al. (5,479,638).

As per claims 3, 7, and 11, Assar et al. teaches a FLASH mass storage device (see figure 6, for example), which is inherently a non-volatile memory, and inherently a host to provide commands to the system and a controller to control accessing the flash memory device. With reference to figure 5, a write command is provided to the FLASH mass storage device ("said controller receives a command from said host fro writing updated data), where it is determined if a free block (i.e. where a block is comprised of "one or more sectors", in particular all of the sectors in a block) is available in step 202. If a free block is available, then the data file is programmed into the block ("said controller writes said updated one or more sector information to a new block"). If previous data stored in an another block is superseded, then an old/new flag is set for the superseded block.

As per claims 4, 8, and 12, it is inherent that further write commands to the mass storage device would result in a new block being selected and all of the sectors in the block being written to the new block, i.e. none of the previous sector information is moved.

9. Claims 2-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Hasbun et al. (5,586,285).

As per claims 2, 3, 7, and 11, Hasbun et al. teaches with reference to figures 1 and 2, a host CPU 52, a solid state disk controller 64, and a FLASH memory array 62 ("nonvolatile

memory storage"). With reference to figure 9, for a write operation received from the host to write a sector ("one or more sectors") to the FLASH memory array, the updated sector is written (step 256) to another block (selected by an allocate free physical memory operation, step 250). No other sectors stored in the old block are moved, and the header information for the updated block is modified, as is the translation table pointing to the most recent version of the block (step 258).

As per claims 4, 8, and 12, it is inherent that further write commands to further sectors would result in the process described for claims 3, 7, and 11, being repeated.

As per claims 5-6, 9-10, and 13-14, previous sector information will be moved at a later time, such as when the previous sector information is erased.

Remarks

10. The 35 U.S.C. 102(b) rejection has been made under subsection b, although the filing date of application 08/509,706 (which this application is a CIP) is less than one year from the patent date of Garner. See MPEP §2133.01. If applicant shows that 08/509,706 supports the present claim limitations, then the rejection would be changed to a 35 U.S.C. 102(e) rejection. However, as noted above, it is not clear that the present application supports the claim limitations.

11. The prior art rejections of claims 3-14 assumes that the "previous sector information" refers to sector information other than that being updated by the host command. See the rejection of claims 3-14 under 35 U.S.C. 112, second paragraph, above.

12. With respect to claims 3, 7, and 11, it is noted that the claims do not set forth that the host command is to rewrite one or more, **but not all**, of the sectors that are stored in a particular block. Since "one or more" sectors are set forth in claims 3, 7, and 11, but no upper limit is set, then an entire block may be rewritten to the new block, which inherently does not move the data in the previous block (which will be eventually erased). This is taught by Assar et al. as set forth in the rejection under 35 U.S.C. 102(b), above.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. **Any response to this final action should be mailed to:**

Box AF

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 305-9051, (for formal communications; please mark "EXPEDITED PROCEDURE")

Or:

(703) 305-9731 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reginald G. Bragdon whose telephone number is (703) 305-3823. The examiner can normally be reached on Monday-Thursday from 7:00 AM to 4:30 PM and every other Friday from 7:00 AM to 3:30 PM.

The examiner's supervisor, Matthew Kim, can be reached at (703) 305-3821.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Reginald G. Bragdon
Primary Patent Examiner
Art Unit 2185

RGB
June 1, 2001